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insect infestation. The suspension will be effective upon oral or written notification, whichever is earlier, to the irradiation processor. In the event of oral notification, written confirmation will be given to the irradiation processor within 10 days of the oral notification. The suspension will continue in effect pending completion of the proceeding and any judicial review of the proceeding.

(i) Department not responsible for damage. This treatment is approved to assure quarantine security against fruit flies. From the literature available, the fruits and vegetables authorized for treatment under this section are believed tolerant to the treatment: however, the facility operator and shipper are responsible for determination of tolerance. The Department of Agriculture and its inspectors assume no responsibility for any loss or damage resulting from any treatment pre-scribed or supervised. Additionally, the Nuclear Regulatory Commission is responsible for ensuring that irradiation facilities are constructed and operated in a safe manner. Further, the Food and Drug Administration is responsible for ensuring that irradiated foods are safe and wholesome for human consumption.

(Approved by the Office of Management and Budget under control number 0579-0088)

[70 FR 33269, June 7, 2005, as amended at 71 FR 4461, Jan. 27, 2006; 73 FR 24854, May 6, 2008; 73 FR 32439, June 9, 2008]

§305.33 [Reserved]

§305.34 Irradiation treatment of certain regulated articles from Hawaii, Puerto Rico, and the U.S. Virgin Islands.

(a) Approved irradiation treatment. (1) Commodity-specific doses. Irradiation, carried out in accordance with the provisions of this section, is approved as a treatment for the following fruits and vegetables from Hawaii at the specified dose levels:

IRRADIATION FOR PLANT PESTS IN HAWAIIAN FRUITS AND VEGETABLES

Commodity	Dose (gray)
Abiu	150
Atemoya	150
Breadfruit 1 2	400 or 150

IRRADIATION FOR PLANT PESTS IN HAWAIIAN FRUITS AND VEGETABLES—Continued

Commodity	Dose (gray)
Capsicum spp. (peppers)	150
Carambola	150
Cowpea pods (and its relatives) 1	400
Cucurbita spp. (squash)	150
Dragon fruit 1 2	400 or 150
Eggplant	150
Jackfruit 1 2	400 or 150
Litchi 1	150
Longan	150
Mango	300
Mangosteen 1 2	400 or 150
Melon 1 2	400 or 150
Moringa pods 1 2	400 or 150
Papaya	150
Pineapple	150
Rambutan	150
Sapodilla	150
Sweetpotato 1	400 or 150
Tomato	150

¹ Breadfruit, cowpea pods, dragon fruit, jackfruit, litchi,

¹Breadfruit, cowpea pods, dragon fruit, jackfruit, litchi, mangosteen, melon, moringa pods, and sweetpotato are also subject to the additional inspection and treatment requirements in paragraph (b)(7) of this section.

²Breadfruit, dragon fruit, jackfruit, mangosteen, melon, and moringa pods moving to the continental United States for treatment under limited permit in accordance with the requirements of paragraph (b)(7)(ii) of this section must be treated with the 400 gray dose.

- (2) Pest-specific doses. Any articles from Puerto Rico or the U.S. Virgin Islands, as well as any articles from Hawaii not listed in paragraph (a)(1) of this section, that are required by part 318 of this chapter to be treated or subjected to inspection to control one or more of the plant pests listed in §305.31(a) may instead be treated with irradiation. Articles treated with irradiation for plant pests listed in §305.31(a) must be irradiated at the doses listed in §305.31(a), and the irradiation treatment must be conducted in accordance with the other requirements of this section.
- (b) Conditions of movement. Articles from Hawaii, Puerto Rico, or the U.S. Virgin Islands may be authorized for movement in accordance with this section only if the following conditions are met:
- (1) Location. The irradiation treatment must be carried out at an approved facility in Hawaii, Puerto Rico, or the U.S. Virgin Islands or on the mainland United States. Articles authorized under this section for treatment on the mainland may be treated in any State on the mainland United States except Alabama, Arizona, California, Florida, Georgia, Kentucky, Louisiana, Mississippi, Nevada, New

Mexico, North Carolina, South Carolina, Tennessee, Texas, or Virginia. Prior to treatment, the articles may not move into or through Alabama, Arizona, California, Florida, Georgia, Kentucky, Louisiana, Mississippi, Nevada, New Mexico, North Carolina, South Carolina, Tennessee, Texas, or Virginia, except that movement is allowed through Dallas/Fort Worth, Texas, as an authorized stop for air cargo, or as a transloading location for shipments that arrive by air but that are subsequently transloaded into trucks for overland movement from Dallas/Fort Worth into an authorized State by the shortest route.

- (2) Approved facility. The irradiation treatment facility and treatment protocol must be approved by the Animal and Plant Health Inspection Service. In order to be approved, a facility must:
- (i) Be capable of administering the minimum absorbed ionizing radiation doses specified in paragraph (a) of this section to the articles;¹⁰
- (ii) Be constructed so as to provide physically separate locations for treated and untreated articles, except articles traveling by conveyor directly into the irradiation chamber may pass through an area that would otherwise be separated. The locations must be separated by a permanent physical barrier such as a wall or chain link fence six or more feet high to prevent transfer of cartons. Untreated articles shipped to the mainland United States from Hawaii, Puerto Rico, or the U.S. Virgin Islands in accordance with this section may not be packaged for shipment in a carton with treated articles;
- (iii) Complete a compliance agreement with the Animal and Plant Health Inspection Service as provided in §318.13–3(d) of this chapter; and
- (iv) Be certified by Plant Protection and Quarantine for initial use and annually for subsequent use. Recertification is required in the event that an increase or decrease in radioisotope or a major modification to equipment that affects the delivered dose. Recertification may be required in cases where a significant variance in dose delivery is indicated.

- (3) Treatment monitoring. Treatment must be carried out under the monitoring of an inspector. This monitoring must include inspection of treatment records and unannounced inspectional visits to the facility by an inspector. Facilities that carry out continual irradiation operations must notify an inspector at least 24 hours before the date of operations. Facilities that carry out periodic irradiation operations must notify an inspector of scheduled operations at least 24 hours before scheduled operations. ¹¹
- (4) Packaging. (i) Articles that are treated in Hawaii, Puerto Rico, or the U.S. Virgin Islands must be packaged in the following manner:
- (A) The cartons must have no openings that will allow the entry of fruit flies and must be sealed with seals that will visually indicate if the cartons have been opened. They may be constructed of any material that prevents the entry of fruit flies and prevents oviposition by fruit flies into the fruit in the carton. ¹²
- (B) The pallet-load of cartons must be wrapped before it leaves the irradiation facility in one of the following ways:
 - (1) With polyethylene sheet wrap;
 - (2) With net wrapping; or
- (3) With strapping so that each carton on an outside row of the pallet load is constrained by a metal or plastic strap.
- (C) Packaging must be labeled with treatment lot numbers, packing and treatment facility identification and location, and dates of packing and treatment.
- (ii) Cartons of untreated articles that are moving to the mainland United States for treatment must be shipped in shipping containers sealed prior to interstate movement with seals that will visually indicate if the shipping containers have been opened.
- (iii) Litchi and longan from Hawaii may not be moved interstate into Florida. All cartons in which litchi or longan are packed must be stamped "Not for importation into or distribution in FL."

¹⁰ See footnote 2 of this subpart.

 $^{^{11}\,\}mathrm{See}$ footnote 6 of this subpart.

¹² See footnote 3 of this subpart.

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- (5) *Dosage*. The articles must receive the minimum absorbed ionizing radiation dose specified in paragraph (a) of this section. ¹³
- (6) Dosimetry systems. (i) Dosimetry must demonstrate that the absorbed dose, including areas of minimum and maximum dose, is mapped, controlled, and recorded.
- (ii) Absorbed dose must be measured using a dosimeter that can accurately measure the absorbed doses specified in paragraph (a) of this section.
- (iii) When designing the facility's dosimetry system and procedures for its operation, the facility operator must address guidance and principles from American Society for Testing and Materials (ASTM) standards ¹⁴ or an equivalent standard recognized by the Administrator.
- (7)(i) Certification on basis of treatment. A certificate shall be issued by an inspector for the movement of articles from Hawaii that have been treated and handled in accordance with this section.
- (A) To be certified for interstate movement under this section, litchi from Hawaii must be inspected in Hawaii and found free of the litchi fruit moth (*Cryptophlebia spp.*) and other plant pests by an inspector before undergoing irradiation treatment in Hawaii for fruit flies.
- (B) To be certified for interstate movement under this section. sweetpotato from Hawaii must be inspected in Hawaii and found free of the gray pineapple mealybug (Dysmicoccus neobrevipes) and the Kona coffee-root knot nematode (Meloidogyne konaensis) by an inspector before undergoing irradiation treatment in Hawaii. In addition, sweetpotato from Hawaii to be treated with irradiation at a dose of 150 Gy must be sampled, cut, and inspected in Hawaii and found to be free of the ginger weevil (Elutrotreinus subtruncatus) by an inspector before undergoing irradiation treatment in Hawaii. Sampling, cutting, and inspection must be performed under conditions that will prevent any pests that may emerge from the sampled sweetpotatoes from infesting any other

¹³ See footnote 2 of this subpart.

sweetpotatoes intended for interstate movement in accordance with this section.

- (C) To be certified for interstate movement under this section, breadfruit and jackfruit from Hawaii must be inspected in Hawaii and found free spiraling whitefly (Aleurodicus dispersus), inornate scale (Aonidiella inornata), red wax scale (Ceroplastes rubens), green scale (Coccus viridis), gray pineapple mealybug (Dysmicoccus neobrevipes), pink hibiscus mealybug (Maconellicoccus hirsutus), spherical mealybug (Nipaecoccus viridis), citrus mealybug (Pseudococcus cryptus), melon thrips (Thrips palmi) and signs of thrip damage before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a post-harvest dip in accordance with treatment schedule T102-c as provided §305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose. Regardless of irradiation dose, the fruit must be free of stems and leaves and must originate from an orchard that was previously treated with a fungicide appropriate for the fungus Phytophthora tropicalis during the growing season and the fruit must be inspected prior to harvest and found free of the fungus or, after irradiation treatment, must receive a post-harvest fungicidal dip appropriate for Phytophthora tropicalis.
- (D) To be certified for interstate movement under this section, fresh pods of cowpea and its relatives from Hawaii must be inspected in Hawaii and found free of the cassava red mite (Oligonychus biharensis) and adults and pupae of the order Lepidoptera before undergoing irradiation treatment. The pods must be free of stems and leaves.
- (E) To be certified for interstate movement under this section, dragon fruit from Hawaii presented for inspection must have the sepals removed and must be inspected in Hawaii and found

¹⁴ See footnote 4 of this subpart.

of gray pineapple mealybug (Dysmicoccus neobrevipes), pink hibiscus mealybug (Maconellicoccus hirsutus), and citrus mealybug (Pseudococcus cryptus) before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a post-harvest dip in accordance with treatment schedule T102-c as provided §305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose. Regardless of irradiation dose, the fruit must be free of stems and leaves.

(F) To be certified for interstate section. movement under this mangosteen from Hawaii must have the sepals removed and must be inspected in Hawaii and found free of gray pineapple mealybug (Dysmicoccus neobrevipes), pink hibiscus mealybug (Maconellicoccus hirsutus), citrus mealybug (Pseudococcus cryptus), and Thrips florum before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a postharvest dip in accordance with treatment schedule T102-c as provided in §305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the $400~{
m gray}$ dose. Regardless of irradiation dose, the fruit must be free of stems and leaves.

(G) To be certified for interstate movement under this section, melon from Hawaii must be inspected in Hawaii and found free of spiraling whitefly (*Aleurodicus dispersus*) before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must ei-

ther receive a post-harvest dip in accordance with treatment schedule T102-c as provided in §305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose. Regardless of irradiation dose, melons must be washed to remove dirt and must be free of stems and leaves.

(H) To be certified for interstate movement under this section, moringa pods from Hawaii must be inspected in Hawaii and found free of spiraling (Aleurodicus whitefly dispersus), inornate scale (Aonidiella inornata), green scale (Coccus viridis), and citrus mealybug (Pseudococcus cryptus) before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a post-harvest dip in accordance with treatment schedule T102-c as provided in §305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose.

- (ii) Limited permit. A limited permit shall be issued by an inspector for the interstate movement of untreated articles from Hawaii into the continental United States for treatment in accordance with this section.
- (A) To be eligible for a limited permit under this section, untreated litchi from Hawaii must be inspected in Hawaii and found free of the litchi fruit moth (*Cryptophlebia* spp.) and other plant pests by an inspector.
- (B) To be eligible for a limited permit under this section, untreated sweetpotato from Hawaii must be inspected in Hawaii and found free of the gray pineapple mealybug (Dysmicoccus

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neobrevipes) and the Kona coffee-root knot nematode (Meloidogyne konaensis) an inspector. In addition. sweetpotato from Hawaii to be treated with irradiation at a dose of 150 Gy must be sampled, cut, and inspected in Hawaii and found free of the ginger weevil (Elytrotreinus subtruncatus) by an inspector. Sampling, cutting, and inspection must be performed under conditions that will prevent any pests that may emerge from the sampled sweetpotatoes from infesting any other sweetpotatoes intended for interstate movement in accordance with this sec-

(C) To be eligible for a limited permit under this section, breadfruit and jackfruit from Hawaii must be free of stems and leaves and must originate from an orchard that was previously treated with a fungicide appropriate for the fungus *Phytophthora tropicalis* during the growing season and the fruit must be inspected prior to harvest and found free of the fungus or, after irradiation treatment, must receive a postharvest fungicidal dip appropriate for *Phytophthora tropicalis*.

(D) To be eligible for a limited permit under this section, fresh pods of cowpea and its relatives from Hawaii must be free of stems and leaves and must be inspected in Hawaii and found free of the cassava red mite (Oligonychus biharensis) and adults and pupae of the order Lepidoptera.

(8) Records. Records or invoices for each treated lot must be made available for inspection by an inspector during normal business hours (8:00 a.m. to 4:30 p.m., Monday through Friday, except holidays). An irradiation processor must maintain records as specified in this section for a period of time that exceeds the shelf life of the irradiated food product by 1 year, and must make these records available for inspection by an inspector. These records must include the lot identification, scheduled process, evidence of compliance with the scheduled process, ionizing energy source, source calibration, dosimetry, dose distribution in the product, and the date of irradiation.

(c) Request for approval and inspection of facility. Persons requesting approval of an irradiation treatment facility and treatment protocol must submit the

request for approval in writing to the Animal and Plant Health Inspection Service, Plant Protection and Quarantine, Center for Plant Health Science and Technology, 1730 Varsity Drive, Suite 400, Raleigh, NC 27606. Before the Administrator determines whether an irradiation facility is eligible for approval, an inspector will make a personal inspection of the facility to determine whether it complies with the standards of paragraph (b)(2) of this section.

(d) Denial and withdrawal of approval.

(1) The Administrator will withdraw the approval of any irradiation treatment facility when the irradiation processor requests in writing the withdrawal of approval.

(2) The Administrator will deny or withdraw approval of an irradiation treatment facility when any provision of this section is not met. Before withdrawing or denying approval, the Administrator will inform the irradiation processor in writing of the reasons for the proposed action and provide the irradiation processor with an opportunity to respond. The Administrator will give the irradiation processor an opportunity for a hearing regarding any dispute of a material fact, in accordance with rules of practice that will be adopted for the proceeding. However, the Administrator will suspend approval pending final determination in the proceeding, if he or she determines that suspension is necessary to prevent the spread of any dangerous insect infestation. The suspension will be effective upon oral or written notification, whichever is earlier, to the irradiation processor. In the event of oral notification, written confirmation will be given to the irradiation processor within 10 days of the oral notification. The suspension will continue in effect pending completion of the proceeding and any judicial review of the proceeding.

(e) Department not responsible for damage. This treatment is approved to assure quarantine security against the Trifly complex and other plant pests. From the literature available, the articles authorized for treatment under this section are believed tolerant to the treatment; however, the facility operator and shipper are responsible

for determination of tolerance. The Department of Agriculture and its inspectors assume no responsibility for any loss or damage resulting from any treatment prescribed or supervised. Additionally, the Nuclear Regulatory Commission is responsible for ensuring that irradiation facilities are constructed and operated in a safe manner. Further, the Food and Drug Administration is responsible for ensuring that irradiated foods are safe and wholesome for human consumption.

(Approved by the Officer of Management and Budget under control numbers 0579-0198, 0579-0281, and 0579-0331)

[70 FR 33269, June 7, 2005, as amended at 71 FR 4461, Jan. 27, 2006; 72 FR 8088, Feb. 23, 2007; 73 FR 24854, May 6, 2008; 73 FR 32439, June 9, 2008; 74 FR 2775, Jan. 16, 2009]

§§ 305.35-305.39 [Reserved]

Subpart—Treatments for Garbage

§ 305.40 Garbage treatment schedules for insect pests and pathogens.

- (a) T415-a, heat treatment. Incinerate to ash. Caterers under compliance agreement using an incinerator for garbage must comply with the following conditions:
- (1) Incinerator must be capable of reducing garbage to ash.
- (2) Incinerator must be maintained adequately to ensure operation.
- (b) *T415-b*, *dry heat or steam*. The garbage must be heated to an internal temperature of 212 °F for 30 minutes followed by burial in a landfill.
- (1) The sterilizer used to perform the treatment must be capable of heating garbage to an internal temperature of 212 °F and maintaining it at that temperature for a minimum of 30 minutes.
- (2) The sterilization cycle must be reevaluated and adjusted twice a year using thermocouple to recalibrate the temperature recording device. Adjusting the sterilization cycle semiannually will ensure that all garbage processed is heated to a minimum internal temperature of 212 °F for at least 30 minutes and that the temperature recording device accurately reflects the internal temperature of the sterilizer.
- (3) The caterer administering the treatment under a compliance agree-

ment must comply with the following conditions:

- (i) The operator must date and initial time/temperature records for each batch of garbage sterilized. The supervisor must review and sign each time/temperature record. The facility must retain records for 6 months for review by APHIS.
- (ii) The drain in the bottom of the sterilizer must be cleaned between each cycle to ensure proper heat circulation.
- (4) All reevaluations and adjustments must be observed by APHIS.
- (c) T415-c, grinding and discharge into a sewage system. The sewage system must be approved by the Administrator upon his/her determination that the system is designed and operated in such a way as to preclude the discharge of sewage effluents onto land surface or into lagoons or other stationary waters and otherwise is adequate to prevent the spread of plant pests and livestock or poultry diseases.

§ 305.41 [Reserved]

Subpart—Miscellaneous Treatments

§ 305.42 Miscellaneous treatment schedules.

- (a) T102-b, T102-b-1, T102-b-2, soapy water and wax. (1) The fruit must be immersed in a soapy water bath of one part soap solution (such as Deterfrut) to 3,000 parts water for 20 seconds.
- (2) The soapy bath must be followed with a pressure shower rinse to remove all excess soap.
- (3) The fruit must be immersed for 20 seconds in an undiluted wax coating (such as Johnson's Wax Primafresh 31 Kosher fruit coating). The wax coating must cover the entire surface of the fruit.
- (b) T102-c, warm, soapy water and brushing for durian and other large fruits such as breadfruit. (1) Detergent (such as Deterfrut) must be added to warm water (110–120 °F) at the rate of one part detergent or soap to 3,000 parts water.
- (2) The fruit must be immersed for at least 1 minute in the warm detergent water.